Type: Poster Presentation

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Session: Virology and Viral Infections (Non-HIV)
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Room: Poster & Exhibition Area

Retinopathy and the association with pegylated interferon and Ribavirin

J. Farley*, A. Truong, T. Nguyen, W. Shum

Dr John Farley Inc, Vancouver, BC, Canada

Background: Treatment of hepatitis C (HCV) with Pegylated interferon and Ribavirin can result in a many adverse effects but ocular complications are considered rare, benign and usually reversible which does not require the cessation of treatment regimen. It has been suggested that retinopathy in patients undergoing treatment with Pegylated interferon are increase if a history of hypertension is present. However, retinopathy can occur without history of hypertension.

Methods: Retrospective chart review of 4 individuals who developed retinal complications during hepatitis C treatment with Pegylated Interferon Alfa 2a and Ribavirin.

Results: 4 Males, average age 49.75±5.97 years. Ethnicities: 2 Caucasian, 1 Vietnamese, 1 Aboriginal. We assessed for other comorbidities such as diabetes (1 was uncertain); hypertension, and hypercholestrol were not a factor. 2 was genotype 2, 1 genotype 3, and 1 genotype 1. Rapid viral response with HCV RNA undetected at week 4 was noted for 3 with genotype 2 or 3, and early viral response with HCV RNA undetected at week 12 was noted for 1 who had genotype 1. Fibrosis: 1 No Fibrosis, 1 Fibrosis Stage 2, 1 Fibrosis Stage 3, and 1 did not complete a biopsy. Averages wait time from likely infected date to treatment 20 years. Average wait time from year diagnosed was 6.67 years. 2 likely acquired through intravenous drug use and 2 were uncertain who they acquired HCV. Retinal complications occurred between weeks 14 and 26 of treatment with average time of 21 weeks into treatment. Diagnoses entertained included blurry vision in both eyes to retinal hemorrhage and atherosclerotic retinopathy.

Conclusion: Retinopathy in patients treated with Pegylated Interferon Alfa 2a and Ribavirin is considered rare. However, routine follow up is essential for management on treatment. We speculate that individuals with more severe disease may be more likely to develop retinopathy. More research should be completed in order to evaluate this aspect. Multidisciplinary management during the course of treatment is essential towards identifying and monitoring for side effects and treatment response.

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Hepatitis C treatment outcome with pegylated interferon alpha 2a/ribavirin in a real life Community-based setting

J. Farley*, A. Truong, T. Nguyen, W. Shum

Dr John Farley Inc, Vancouver, BC, Canada

Background: Hepatitis C virus (HCV) can be successfully treated with Pegylated Interferon Alpha 2a and weight-based Ribavirin for a duration of 24 or 48 weeks depending on the genotype. The likelihood of response is determined by virological factors such as genotypes, viral load, and host factors such as degree of liver fibrosis, ethnicity. This study based on real-life setting validates published studies (usually based in tertiary-care/ academic institution settings) on the feasibility and efficacy of treating HCV in diverse community-based clinical populations.

Methods: Medical chart review of 389 patients who underwent HCV therapy between January 2001 and September 2011 in a community-based clinical setting in British Columbia. Treatment is based on current standard of care recommendations using Pegylated intrferon alpha 2a and Ribavirin combination. However, Ribavirin dose was usually higher than recommended in at least 50% of cases. Laboratory tests (requested but not necessarily done by all patients): HCV RNA at weeks 0, 4, 12, 24, 48 (Non-Genotype 2 & 3) and 6 months post treatment completion. Definitions: Rapid virological response (RVR) is achieved when HCV RNA is not detected at week 4, early virological response (EVR) at week 12 of treatment and sustained virological response (SVR) at least 6 months after completion of treatment.

Results: Per protocol, 45 were discontinued: "adverse side effects" (7): Myocardial Infarction (1), surgery (2). Two deceased. Null response after week 12 (33), voluntary discontinuation due to other reasons (1).

56 patients were excluded from SVR analysis: lost to follow up (31), pending SVR (19), still on treatment (1), missing data (5).

76.6% (259/333) achieved SVR: genotype 1; 72.0% (126/175), genotype 2; 89.7% (35/39), genotype 3; 82.6% (95/115), genotype other; 75.0% (3/4). Of those with RVR determinations 92.8% (90/97) achieved SVR, and with EVR 89.4% (193/216) had SVR.

GENOTYPE BY TREATMENT RESPONSE

GENOTYPE (N)	RVR	NO RVR	EVR	NO EVR	ETR	NO ETR	SVR	NO SVR
1 (175)	28 (19%)	119	99 (57.6%)	73	139 (79.9%)	35	126 (72%)	49
2 (39)	19 (54.3%)	16	32 (82.1%)	7	36 (92.3%)	3	35 (89.7%)	4
3 (115)	49 (53.8%)	42	81 (77.1%)	24	109 (94.8%)	6	95 (82.6%)	20
OTHER (4)	1 (25%)	3	4 (100%)	0	4 (100%)	0	3 (75%)	1
Total	97	180	216	104	288	44	259	74
Fisher Exact P-Value	0.000		0.0003		0.001		0.033	

SVR BY EARLY VIRAL RESPONSE	RVR	NO RVR	EVR	NO EVR
SVR	90 (92.8%)	123	193 (89.4%)	55
NO SVR	7	57 (31.7%)	23	49 (47.1%)
Fisher Exact P-Value	0.00		0.00	

SVR BY RIBAVIRIN DOSE	MISSING	<=1	1-1.5	>1.5
SVR	40 (75.5%)	69 (67.6%)	135 (84.4%)	15 (83.3%)
NO SVR	13	33	25	3
Fisher Exact P=0.006				

Missing column was excluded for statistically analysis. Fisher Test, P=0.006. Overall the effectiveness of Ribavirin dosage on SVR was statistically significant predictor of SVR.